

THE macdonald JOURNAL

MAY 1976



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MAY 1976

Macdonald Journal
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Cover: Although farm machinery companies have eliminated or shielded many of the hazards on their machines, farming is still a dangerous occupation. See article page 3.

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Journal Jottings

The various duties connected with my job involve "changing my hat" quite often and, on occasion, even wearing one — a hard hat. The last time I donned one was to take photographs of a ditch digger in operation near the College beef barns. Backing away from this fantastic machine as it approached me was less hazardous than the stones, dirt, and debris it churned up, spewed out, and tossed to the wind to do with as it wished. The stones flicking by renewed my conviction that many aspects of farming can be hazardous. We may be stating the obvious but as long as statistics show that farming is the third most dangerous occupation after mining and construction, then there is a continuous need for repetition. An August '75 newspaper clipping kept in the file with Professor

Norris' comments on "Farm Equipment Safety" which appears in this issue, states that approximately 1,400 fatal accidents occur each year in Canada in the farming community. About 24,000 injuries result in loss of time and, of these, 1,500 lead to permanent disability. If our article can add even a soupçon of caution to the busy farming season ahead, then just possibly the next round of statistics may be lower. We hope so.

If I may change hats for a moment here — and I hope it won't have to be a hard one — I would like to point out to our subscribers, and to potential ones, that as our editorial last month stated, as does our masthead above, we at Macdonald College have become our own publishers. In between searching out articles and meeting editorial deadlines, I'll

be doing my best to make certain that our subscription list is as up to date as possible. I may ask for patience in the next month or so as I learn what is for me a new side of the publishing business, but should you have a problem of any kind, I hope you won't hesitate to write to me. I'll do my best to help.

Later this month we welcome to our Campus members of the QWI, who will be gathered here for their Annual Convention. As always, I look forward to their sojourn here. I'm not concerned about which "hat" to wear while they're here, rather it's a question of shoes. They've got to guarantee both comfort for a long day and swiftness of foot in order to keep up with this hard-working, energetic group of women.

Hazel M. Clarke

With all the recent publicity in the press over labour discontent, union demands, Bill 23, etc., one might get the impression that labour problems are confined to cities. But each year agricultural labour problems seem to get a little worse, even if they don't get the fanfare that urban labour problems do. Each year many farmers find it a bit more difficult to get good, reliable farm help. And each year it often becomes a bit more difficult for agricultural college students and new graduates to find employment opportunities that will enable them to return to the farm or their home community.

In some areas of the United States and Canada, farmers, college students, government departments of agriculture, and agricultural colleges are trying to help with the labour problem by trying to get farmers and college students together. The result is sort of an agricultural apprenticeship program whereby agricultural students gain valuable work experience and the farmer gets more than just a strong back.

For many college students, even those from farms and rural communities, the entry into farming can be very difficult. With no home farm or capital to launch him, often his only assets are the knowledge and management skills he has acquired in agricultural college. Many farming operations are now becoming large enough or specialized enough that they are now in a position to require full time farm help and can profit from the management skills acquired in college. Particularly in grain and livestock

operations there would appear to be demand for farm help with back up management or with the potential to develop it. Many farmers actively seek out this type of person who has been challenged to think, to solve problems, and who, in most cases, is more mature.

For the student, this type of arrangement presents an opportunity to learn about farming first-hand. For the student already from a farm it can present an opportunity to apply his knowledge to actual management problems. For others, it can be a stepping stone to becoming full time farmers. In any case, it is important that the person have an opportunity to grow and develop by making or sharing in decisions and seeing the results.

Macdonald College has already been taking a few steps in this direction through its Diploma in Farm Management program and a summer farm labour pool, both of which attempt to place students in summer farm positions. For the rural community these types of programs could offer some promise. For years, many smaller communities have lost their young people to the cities because there appeared to be no jobs for them at home. With some prospect of being able to start as a farm apprentice and eventually move to a full time manager or part owner of a farming operation, perhaps just a few of these young people might be encouraged to stay.

Gordon Bachman

Farm Equipment Safety

(Professor Eric Norris of the Department of Agricultural Engineering discusses farm equipment safety with Hazel Clarke. Questions appear in italics.)

A basic question to get us going: why is farm safety important?

Professor Norris: Farm safety is important for the well-being of the farmer in many ways. Any kind of an accident is a painful experience. It hurts him, and it hurts his pocketbook. He may be off the job for 10 days or he may lose a finger which affects his productivity for the rest of his life. For any kind of accident a farmer is going to pay a penalty in dollars and cents. Finally, almost all farm machinery mishaps can be avoided.

What are the basic reasons for accidents on the farm?

Professor Norris: There is really one basic reason and that is human error, which can occur for several reasons: Carelessness is the major reason for human error; lack of knowledge of equipment, which really boils down to carelessness in not looking at the operator's manual beforehand, is another reason; fatigue is a very prevalent cause of farm machinery accidents. The farmer is in a hurry to get things done, and the weather is chasing him. Preoccupation is a common reason for inattention — the farmer is working right in his home and might be preoccupied with other things; one moment of inattention can be fatal in some cases. Incompatibility of the man to the job is sometimes a problem.

Basically there are certain factors which have to be considered in

agricultural machinery safety. For instance, consideration to the physical limitations of the person involved — size, strength, reaction time, age, hearing ability, and eyesight. These are all physical limitations that the farmer should evaluate regarding himself, a hired operator, or a family operator of equipment. There are physiological factors: again fatigue is a physiological reaction to overwork. If a farmer is fatigued he should stop. It's that simple — it's not worth losing an arm or a leg in order to get an extra five acres done. Other physiological factors: obviously he shouldn't be operating equipment while under the influence of alcohol or drugs. If a farmer is feeling ill, then it may be a good idea to stay away from certain types of equipment.

Environmental conditions have an effect on the safety of machinery operations. Some jobs on the farm are inherently dusty. This type of condition may cause haste and carelessness.



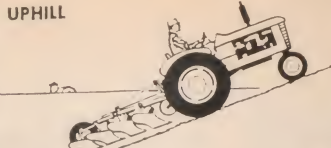

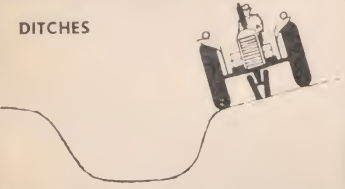







Temperature is another factor. Farmers have to work in all kinds of temperatures. Hot, humid conditions will cause you to become fatigued more quickly. Vibration and noise are other factors. These kinds of stimuli to the human body tend to fatigue the body faster. I had an occasion to experience this problem last summer when I was working with a one-cylinder garden tractor that had excessive vibrations. After running it for about one hour, I found I had almost no grip left in my hands, and later that day I had cramps in my stomach. It is very common for excessive vibration to cause

an adverse reaction of the intestinal tract.

There are psychological factors: a farmer who is angry is under high emotional stress, and his judgement is impaired. Family or financial troubles may result in an unacceptable level of preoccupation. Remember, too, that farming is more than a business; it's a way of life. Farmers live right within their food factory and there is the problem that you have children around, which doesn't happen in the average factory. The result is that farm accidents quite often involve small children. This kind of accident is classified as the second person accident; It is not the operator that gets into trouble, it's some person who is standing nearby. Children like machinery, but from an early age it should be stressed that farm equipment can be dangerous and is not to be played with.

Can you classify the hazards to which a farmer is exposed when working with a machine?

Professor Norris: I would like to discuss this in terms of specific kinds of injuries that can occur. For instance, on a machine there are places that are known as pinch points. If you get your hand in a certain position, let's say between the arms of a hydraulic loader, you get your fingers or hands pinched. There are wrap points — usually some rotating object such as the end of a shaft — where clothing can be caught, twisted, and pulled. Wrap points are varied in their aggressiveness. A smooth shaft is not nearly as aggressive as a spline shaft. There are

SPEED  <p>Select safe speed for each job. Slow down when turning. Cut speed when working on slopes, near ditches or on rough, uneven ground.</p>	CROSSING SLOPES  <p>Cross slopes slowly. Look-out for dips, raises, rocks, gullies, etc., that could trigger upset. Set wheels wide as practical for job.</p>	UPHILL  <p>Go up slopes carefully. Use power gear if pulling heavy rolling load. On grades, engage clutch smoothly—don't jerk. Back the tractor up really steep grades.</p>	DOWNHILL  <p>Use lower gear, especially with heavy rolling load. Keep loads within ability of tractor to control and stop them. Wagons hauling heavy loads should have brakes.</p>
DITCHES  <p>Drive slowly when crossing or working along shallow ditches or grass waterways. Stay safely clear of irrigation or large open drainage ditches.</p>	HIGH HITCH  <p>Hitch only to drawbar or regular hitch points. Set drawbar no higher than 17 inches from ground. Engage the clutch smoothly, not suddenly.</p>	PUBLIC ROADS  <p>Observe traffic rules. Signal intentions. Identify rig with SMV emblem. Turn corners slowly. Shift down when going up or down grades with load.</p>	LOADS ON FRONT  <p>Operate front end loader according to instruction manual. Handle rig smoothly—avoid abrupt turns, jerky starts and stops. Don't overload. Add rear wheel weights.</p>
LOADS ON DRAWBAR  <p>Add front end weights for balance. Handle tractor carefully on slopes, when crossing ditches, on rough ground. Avoid hitting rocks, stumps, etc., with trailing vehicle.</p>	HIDDEN OBSTACLES  <p>Slow down in tall weeds or grass. Watch for hidden logs, stumps, rocks, holes, etc. Keep speed moderate at night and when visibility is poor.</p>	MISUSE  <p>Use tractor for the jobs it's designed to do—not for running errands, herding cattle or just plain horseplay.</p>	MUD  <p>When you can't back out, get help. Don't chain blocks to drive wheels—chassis can revolve around the axle if wheels stick. Avoid muddy spots when possible.</p>

Avoid these common setups for upsets . . . operate your tractor safely!

shear points. The best example would be the knife blades in the mower. There are points where one might be crushed in some way or other. A crush point might be the end of a draw bar. When you are hitching a tractor to an implement, a finger can get crushed if things are not properly lined up. There are pull points where you can be pulled into a machine by moving belts — the moving points on a large, round baler or the husking rolls in a corn picker. There are free wheeling hazards. A fly wheel, which continues to rotate after the machine is stopped, has considerable energy in it, and this energy can injure someone who gets a little too close to it. There are thrown object hazards. For example, a piece of stone or debris can be thrown from a rotary mower to injure a passerby. There are hazards of stored energy. The best example of this is a spring under tension or compression. If a farmer suddenly releases a spring maintaining a machine, it can hit him with considerable force. A

hydraulic system under pressure has a lot of stored energy, especially with the newer ploughs that have hydraulic pressure accumulators on them as an option. Electrical energy is another form of stored energy that can be hazardous either around machinery or around the farmstead.

Then what does a farmer do to minimize the chances of an accident occurring?

Professor Norris: There are three really good rules in this game. The first one is to use standard operating procedures. The thing that needs to be stressed here is that the operator's manual should be read before the machine is mounted, hitched up, or used. It should be read immediately after the vehicle is unloaded off the dealer's truck. The second rule is to maintain the equipment in a safe condition. The third rule is to recognize hazards and correct them. I guess the third rule is really to use some horse sense.

The second rule provides some

extra hazards of its own. Maintaining the equipment in a safe condition implies some kind of service, and I strongly believe that a farmer should have a well-equipped, spacious service shop. It depends upon his capabilities. If a farmer is not mechanically inclined, his service shop will be much smaller, much less sophisticated than that of a farmer who enjoys tinkering with machinery. However, a well-equipped service shop can be a great benefit. If a farmer has a service shop, he has to keep it in good repair or it becomes another place where he himself can get into trouble. He should buy good tools and keep them in good repair. Consider a simple file. When you go to the hardware store to buy a file, the thing doesn't have a handle on it. Well buy a handle or make sure that you have one at home. It is not an uncommon accident for a farmer to be working with a file and it strikes an object that is a little harder or digs in; without a handle, that sharp point can give a nasty puncture. That is just one small example.

I cannot stress too strongly the hazards of welding equipment. The electric arc welder is a high temperature, high current machine. It also has a pretty high light level, and exposure of the eyes to the strong light of an arc welder can give you a painful burn for a few days. In general, the automatic reaction of closing the eyes will prevent any permanent damage but there is really no need to have sore eyes.

Oxacetylene welding equipment has its own set of hazards. You are working with a very flammable explosive material which must be treated with respect.

If you are servicing equipment, you are going to be jacking it up or using a hoist. This should be maintained properly. Using a jack has many hazards associated with it. If you have to use a block underneath the jack, it should be a broad-based, secure block. Changing a tire on a large tractor is a pretty big job. Some of the tires are very heavy and moving these around has to be done with care.

Even charging a battery has its hazards. The charging of a battery results in the production of hydrogen gas. If you pull the leads from the charger off the battery before shutting the charger off, you might cause a spark, and hydrogen in the presence of oxygen can explode.

What about the actual operation of machinery?

Professor Norris: The main sources of accidents around the farm are tractors or self-propelled equipment because these are the types of equipment the farmer is sitting on most often. There are many kinds of accidents that can occur, and they can occur at different stages of the operation of

this equipment. For instance, in the pre-operation phase, refueling can be a hazardous occupation. Occasionally you still see someone filling up the fuel tank with a cigarette in his mouth. Starting the tractor is yet another area where carelessness can set in. All modern tractors have an ignition interlock switch so that the tractor has to be out of gear or some portion of the transmission has to be in neutral before it can be started. I feel that you have to be in the operator's seat when you start the tractor. It would be just my luck to be standing in front of the rear wheel and turn the switch with the tractor in gear and the interlock switch fails. That only has to happen once! Stopping the tractor is another place where care has to be exercised. The tractor, when it is stopped, should be shut off and parked in a manner similar to an automobile.

One of the major types of accidents during actual tractor operation is the tractor overturn or upset. Sideways overturns occur for various reasons. The most obvious is operating on a steep side slope. Also, care should be exercised when operating beside deep ditches. The other major cause of side overturns is high speed turns during road operation. If the tractor is equipped with a roll bar or safety frame, you should wear a seat belt, otherwise you may be thrown clear and then crushed by the overturning vehicle.

Proper hitching is very important. Hitching to the tractor at a high hitch point is a common source of rear overturns. The reason is that the pull from the implement or large object behind is sufficiently high that it literally pulls the tractor over backwards. Finally a high centre

of gravity can cause a tractor to overturn. What do I mean by a high centre of gravity? If you put a half ton of earth or manure in a front-end loader bucket and raise it to the limit of the height of the hydraulic arms and then proceed to drive down the road, the average weight of the tractor is higher so this high centre of gravity results in the tractor being much less stable. In fact, if a farmer were to step on the brakes suddenly, a front-end overturn could occur.

What other kinds of tractor accidents can occur?

Professor Norris: The power take-off is another very hazardous point. Shields are put on power take-offs for a purpose. Fortunately most of the shielding used on the power take-off nowadays is of the integral shield type which makes it impossible for the farmer to remove. The only thing that should be checked is that the shield rotates freely on its bearings because if it should seize on the shaft, then the shield itself becomes another wrap point. Care in hitching both from the point of view of safety of the operator and the person aiding in the hitching is very important.

Farmers have to take equipment on the road at times. Is there anything special to mention in this respect?

Professor Norris: Most farmers have a healthy respect for high-speed highways and are being more and more careful. Slow-moving vehicle signs should be on all equipment that goes on the road, and the tractor towing the equipment should have sufficient warning lights and head lights for night use. Wide equipment which is to be taken



on the road should be made as narrow as possible by putting it into transport position such as is available. If the machine is wider than a normal vehicle on the road, then warning reflectors on the extremities of the machine should be installed. The farmer should try to drive on the shoulder, if traffic is heavy and if the shoulder is safe. There is no sense driving on the shoulder and ending up overturned in the ditch. Using common sense can make life a little more bearable for the hurrying motorist. The "no riders" rule should be very strictly enforced in this case. The farmer is probably travelling in road gear, 14 to 16 m.p.h., and his reactions have to be faster than in the fields so the interference of someone standing on the operator's platform is especially unwelcome.

The farmer should realize that if he is going 15 m.p.h. and a car is overtaking him going 55 m.p.h., the speed at which the gap is closing between the two vehicles is 40 m.p.h. This means that if the motorist comes upon him just behind the brow of a hill and sees him 400 feet away,

the motorist has about seven seconds to do something about this tractor in his road. If someone is dead as a result of an accident, it doesn't matter who was right and who was wrong. The farmer must take it upon himself to be particularly careful. He may be perfectly right in his operation but he really should look out for the unwary motorist.

Are there any particular hazardous field operations that should be mentioned?

Professor Norris: There are hazards in almost all types of field operations. You can go through the seasons of a farm operation and come up with hazardous situations. Tillage machinery is heavy machinery by nature and often unwieldy. It doesn't lend itself to taking sharp corners so care in hitching and operation of tillage equipment is important. Most farmers are respectful of agricultural chemicals, at least the ones with the skull and cross bones sign on them such as herbicides and pesticides. However, there are others with which he should be concerned. Chemical fertilizer, for instance, is

pretty toxic stuff if inhaled and it is pretty corrosive material. Of course, anhydrous ammonia is a very corrosive material. If it should get into a farmer's eyes, it behooves him to get his eyes washed immediately in a continuous stream of water for several minutes thereafter and then proceed to a physician as quickly as he can. Liquid manure falls into the area of a chemical because liquid manure tanks have been known to have a build-up of dangerous gases. Hydrogen sulphide or "rotten egg gas" is fatal if inhaled in sufficient quantities. Methane gas with oxygen can be very explosive. Agricultural chemicals should be handled with extreme care and all of the instructions on the label should be followed to the letter. For example, if it states that a gas mask should be worn, then wear one; if rubber gloves should be worn, then wear them. Finally, storage of herbicides and pesticides is important. Just as the housewife should keep the oven cleaner away from the kids, pesticides and herbicides should be stored in a locked cabinet, possibly in the equipment storage area.

A farmer should be completely familiar with his equipment, use standard procedures, and be constantly on the alert.

Moving on through the season, we come to haying or haylage handling time. Operating haying equipment can be dangerous. A good crop of hay acts as a marvellous camouflage for ditches, and the farmer could easily drop a tractor wheel or a self-propelled mower conditioner wheel in the ditch if he is not careful. He could forget about a shallow ditch that goes through the field. The mower conditioner is a machine that quite often has a very fast steering response; one wheel goes in forward and one wheel goes in reverse and the machine pivots about its centre. If this is done at high speed, the operator could be thrown around — or thrown off — the machine. Haying equipment such as the mower has knives. These have to be handled with respect. The hay conditioner is a pair of rollers which move at quite high speed. In fact, should you go anywhere near a pair of conditioning rolls that are running or be holding on to a bunch of hay that goes through them and get caught, you would be pulled into the rollers long before you could ever let go. Forage choppers have pretty vicious chopper blades which should be handled with respect either in adjustment or sharpening operations.

Haying is one of the high stress periods in farming. If a farmer is trying to beat the weather — and eastern Canada does not have ideal haying weather very often — and tries to go too long he can become fatigued. As I mentioned at the beginning, fatigue is one of the big enemies in this game. Harvesting of cereal grains and corn brings the combine into play. The combine is another large piece of machinery with all the usual hazards plus a few more of its own. It can become plugged. Obviously, the farmer should shut the machine down before he dives into the cylinder to unclog it. Keep dust cleared away from the engine. This is a bad situation

with very dry, dusty material around an engine with hot parts. Should dust get around the exhaust system there is a fire hazard. The forage chopper and the corn picker are other potentially hazardous machines. The corn picker, especially, has a pair of snapping rolls that can pull a farmer into them before he can let go of the stick with which he is trying to poke a piece of corn. This has been a real killer over the last 25 years, but farmers are much more aware of that hazard now. Machinery companies are doing their best and have made the corn picker much safer that it used to be. I should mention that the machinery companies over the past few years have improved their machinery a great deal as far as eliminating or shielding all of the hazards that they can. However, farm machinery, by its nature, has to have some of these types of hazards built in because in a lot of cases shearing is the function of the machine.

What about other places and situations around the farm?

Professor Norris: The farmer not only has his field machinery to worry about but he also has other equipment around the farm that can be hazardous. Some things, once mentioned, seem to be self-evident hazards. Consider a large grain bin with an auger for removing grain from the bottom. If the grain bridges over and the auger isn't getting grain feeding to it the farmer may be tempted to crawl up to the top of the bin and poke around with a stick or get in there and tramp around to get things flowing again. He's putting himself in a situation similar to quicksand because once the grain starts flowing it can take him right down into the pile. It has been calculated that a six-inch grain auger could remove enough grain to suck a man down into the pile in something like 20

seconds. If you have to go into a grain bin where an auger is working — and it is not recommended — have a safety rope attached.

Most farmers are familiar with the hazards of toxic gas build up in silos and in liquid manure tanks. Crop dryers can be hazardous because a farmer is working with high temperatures, fuel around, and grain dust — a bad combination of materials.

Chain saws should be treated with respect. Felling a tree is not something that comes naturally. There are techniques and if a farmer is going to do some of this type of work, he should know how. Making the cuts improperly at the bottom of the tree can result in the tree kicking out and hitting the person making the cuts.

I think I can close on the note that the farm is one of the most hazardous places as far as high-powered equipment is concerned. One person operates many kinds of equipment, unlike a factory worker who operates one piece of equipment, stays with it, and becomes very familiar with it throughout the year. Almost all of a farmer's equipment works in the field and therefore it can not be made as foolproof as on-the-floor factory equipment. Again, I should re-emphasize that this is a way of life, and you have more than just the operator around the equipment. The farmer has to be on his toes, not only for himself but also for all people around him.

Do farmers carry enough insurance?

Professor Norris: They may have some but I doubt that they carry enough considering the potential hazards they face every day on the farm. In any event, insurance is no recompense for lost time, lost fingers or the anguish caused by an accident.

Some Edible and Interesting Plants of Our Area

by Elizabeth M. Parnis
Assistant Curator
McGill University Herbarium

Illustrations by Shirley Rourke

It must also not be forgotten that herbs frequently ripen earlier or later according to the characteristics of the country and the temperature of the year, and that while some of them by an innate property bear flowers and leaves in the winter, others flower twice a year. Now it behooves anyone who desires to be a skilful herbalist, to be present when the plant first shoots out of the earth, when they are fully grown and when they begin to fade. For he who is only present at the budding of the herb, cannot know it when full-grown, nor can he who hath examined a full-grown herb, recognize it when it has only just appeared above ground. Owing to changes on the shape of leaves and the size of stalks, and the flowers and fruits, and of certain other known characteristics, a great mistake has been made by some who have not paid proper attention to them in this manner. DIOSCORIDES, circa A.D. 512.

Come May each year I call up some special friends and we make our annual pilgrimage to a spot near Valleyfield to look for newly sprouted fiddleheads — the very young, tightly curled leaves or fronds of the ostrich fern or *Matteuccia struthiopteris* (L.) Todaro. Once in the area we become stimulated by the evidence of new growth all around us after the long, dormant winter.

Fiddleheads are available in the local supermarkets at over a dollar a package and are in no way as delectable as the ones we gather. The ostrich fern can be found quite easily; it is best to look in damp places, especially those close to the rivers. They thrive on the areas of alluvial silt,



Ostrich fern in the fiddlehead stage. Early May.



Ostrich fern in full leaf and with mature fertile fronds — 1/12th natural size.

and in New Brunswick the local Indians supplement their income each year by visiting the banks of the St. John's river after the river has ceased to be swollen by the spring run-off. Here they pick the fiddleheads to be frozen and sold commercially.

To recognize the ostrich fern at this stage one has to take Dioscorides seriously, as in May one does not see the beautiful fronds that are shaped like ostrich feathers, but only a curled leaf, shaped like a violin head and about three or four inches tall. However, a look around the area will probably reward you with a sure sign that these are indeed young ostrich ferns; last year's fronds that carried the spores of this plant are dry, woody, and dark brown but still persisting in spring. They are also shaped like ostrich feathers, and provide an important clue to the identification of this edible fern.

There are other fern species that can be eaten but none is as tasty as the ostrich fern. The cinnamon fern, *Osmunda cinnamomea* L., is one that is sometimes eaten but it is bitter in comparison. The fiddlehead of this fern is covered by woolly hairs while that of the ostrich fern, by light brown, dry, papery scales.

Fiddleheads are collected when they are less than six inches long, either by cutting with a knife or simply breaking them off with the fingers. But please leave a few fiddleheads on each plant so they can survive for coming years.

To cook, first rub off the scales, then immerse the fiddleheads in boiling, salted water and cook for about five to eight minutes. Drain, and add butter and salt for a delicious vegetable. They can also be made into a cheese casserole by baking in a cheese sauce, or into a soup.

If you go "fiddleheading", take a look around the area and you will probably see skunk cabbage, *Symplocarpus foetidus* (L.) Nutt. This is a plant that lives up to its name, and smells strongly of skunk when bruised. In May, to find skunk cabbages, look for large, bright green cones of tightly curled leaves, about eight to 12 inches tall. Beside this bud, according to the age of the plant, will be the "flower", which consists of a deep red speckled shiny sheath or spathe which forms a hood over a yellow club-shaped spike or spadix which in fact bears a group of flowers. Skunk cabbage belongs to the same family as Jack-in-the-Pulpit or *Arisaema* *atrorubens* (Air.) Blume, the arum lily Family or Araceae. All members of this family contain crystals of calcium oxalate throughout their tissues and when eaten fresh or improperly cooked, cause a mouth-puckering and peculiar burning sensation. The Indians used to eat the roots of Jack-in-the-Pulpit and skunk cabbage and produced a flour from them. They destroyed the calcium oxalate crystals in the roots by drying thoroughly for up to three months.

Apparently the leaves of skunk cabbage can be used as a potherb. The unpleasant odour is dispelled by cooking, but several waters should be used and baking soda added in a small quantity to each



Skunk cabbage in early May. Flower in foreground. One third natural size.



Skunk cabbage in summer — 1/12th natural size.

change of water. But this is one instance when one needs to know the plant thoroughly because an extremely poisonous plant is often found associated with skunk cabbage and is a look-alike if one does not look carefully. The culprit is white hellebore or indian poke, *Veratrum viride* Ait., not a member of the Araceae. It can be distinguished from skunk cabbage by its elliptic, strongly pleated leaves which have no stalks. It is not found often around Montreal but grows freely in the Eastern Townships. While members of family Araceae have been used by the Indians, I would not recommend them because of possible poisoning unless great care is taken in preparation and identification.

Skunk cabbage is interesting, apart from its dubious edible nature, for its amazingly early appearance in the spring. It can be found well before the snow melts in March at which time its activity generates enough heat to melt the snow around it and there it appears, completely encircled in the white stuff, ready to unfurl when spring really does arrive. One wonders how a plant can reach the size that it does so early in the year. But if one tramps through woods in October or November, after the majority of flowering plants have died and the leaves fallen, one can find skunk cabbage in its winter condition, already five to six inches above the ground. Its leaves and growing point are protected by a single beautiful scale that is smokey mauve in colour and beside this sharp pointed bud is the dark purple inflorescence also tightly folded and well protected. At this

time, too, if one digs around these buds, at two to three inches below the soil surface one finds the seeds, some of them already germinating. How do they get there? Because the ripened fruit lies upon the soil surface and in August rots there. Somehow the seeds become buried.

As spring progresses, Nature's larder begins to fill; a tasty salad can be prepared from yet unfolding maple, elm, oak, and beech leaves. This is the time to return to those secret spots one marked last summer where the asparagus was growing in its characteristic feathery form. Asparagus is not native here but is a garden escape. In the spring one returns to the stubble and finds those succulent, tender young shoots that are a gourmet's delight, but only if one has listened to Dioscorides.

Then, if you are a perfectionist gardener, the weed killers come out and the attack begins on those pesky plants that spoil the well-groomed lawn. Dandelions are the most persecuted weeds. But dandelions can provide 14,000 int. units of vitamin A, 35 mg. vitamin C per 100 gms, are well able to compete with spinach, and just as tasty. So perhaps this year you should pick those tender young leaves and shred them in a salad or cook them as a potherb. The sorrels, *Oxalis stricta* L. and *O. montana* Raf., and Curly dock, *Rumex crispus* L., less likely to be found in a garden but very common weeds of the roadsides, can also compete with spinach as a source of vitamin A. They have a higher content of vitamin C than spinach or dandelion, sup-



Skunk cabbage over wintering stage.
Half natural size.



Day lily.

plying 119 mgs. per 100 gms. Lamb's Quarters, *Chenopodium album* L., seems to spring up as a weed everywhere, but raw it can be welcomed as a rich source of vitamin A, some 11,600 int. units, along with 80 mgs vitamin C per 100 gms. Certainly these could be valuable additions to any tossed salad.

Another common weed in our area and one to seek out now as a delicious, unusual, and eye-appealing vegetable, is the milkweed, *Asclepias syriaca* L. The opening and long, empty pods of the fall are a delight for the photographer and the wild flower arranger as the sun's rays shimmer when they catch the seeds' silky hairs, and the unusually curved pods resemble birds in flight to the active imagination. To the botanist, the flowers are strikingly unusual. The stamens become fused to the pistil and their filaments become modified into miniature horns of plenty and form a complex corona or crown, within which the nectar forms. Monarch butterflies enjoy feeding exclusively on the milkweed and it is on this plant that they lay their eggs.

But nearly all parts of this plant can add to the larder. The young shoots, about four to six inches tall, are a tasty potherb and can be served like asparagus. However, the milkweeds all contain a bitter milky juice and must be cooked in two waters to eliminate the bitter principle. They are first added to boiling water for a few minutes, and then this water is poured off and replaced by a change of boiling water to complete the cooking process.

After the leaves have passed the edible stage, the flower buds appear and these too are edible and, tossed into boiling water, become vivid green. They too must be cooked in two waters, then served with salt and butter. They are both delicious and eye-catching. But perhaps the best part of this plant to eat is the young pod when less than two inches long. Cooked, the seeds and silk within become a soft and delicate mass. They can be served simply, again with salt and butter, or in a white sauce.

The milkweeds appear in early summer and provide us with these dishes on into July and August.

About the same time that the milkweed comes into flower, so do the day-lilies, *Hemerocallis flava* L. These have long been used dried in soups by the Chinese and can be purchased in Chinese stores. The day-lily is actually a garden escape and can be found around many old homesteads and frequently along banks of the roadsides. I would not pick from the latter sites because of spraying and pollution from automobiles. But from a clean site, pick the flower buds while still unopened and boil in a small amount of water and serve like green beans. Definitely a tasty dish and again eye-appealing. The withered flowers can be collected, dried and added to soups to impart a clear gelatinous consistency to the dish.

Everyone knows the stinging nettle, that rank and vicious weed. Its botanical name is *Urtica dioica* ssp. *gracilis* (Ait.) Slander — an impressive name for an impressive

edible wild plant. It's one of my favourites now. If one wears thick gloves or clasps it firmly between fingers, one will not be stung, and immersion in boiling water destroys the stinging hairs which can pierce the skin and inject that irritant.

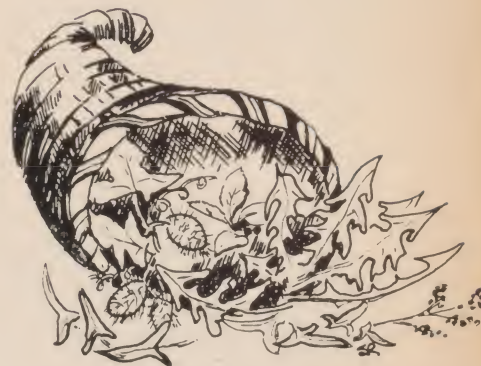
Nettles make a delicious cream soup simply by adding chopped nettle leaves to a basic cream soup flavoured with celery, onion, salt and pepper. They also provide vitamin C in large proportions along with vitamins E and K.

It is hoped that this brief introduction to some of our local edible plants will stimulate readers to seek out, discover, and prepare some of these plants and at the same time awaken an appreciation of nature around us.

Bon apétit.

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Cornucopia of wild salad greens.

The Family

Farm

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HARVESTING AND CONSERVING FORAGE

by J. B. Roy
Information Division

(Summarized and adapted from material prepared by Jean-Marie Fortin of the Agricultural Engineering Department, Laval University, Maurice Hardy of "Engrais Chimiques du Québec, Inc", and the Quebec Crop Productions Council.)

In harvesting and storing forage, farmers are concerned not only with getting high-quality herbage by growing a suitable mixture of plants and then choosing the right time to cut them, but they also have to use keeping methods which will conserve as much of the nutritive value of the crop as possible. Several factors have to be taken into account in choosing a forage conservation method or system, in particular the way the farm is operated and the labour and equipment available. In addition, before making his choice, the farmer has to think about the kind of fodder he wants (hay or silage) and about what he is going to do with it (sell it or convert it into milk or meat, etc.).

The value of a system for conserving forage is judged by how effective it is in retaining the quality that the herbage had at the moment it was cut. Obviously, if high-quality fodder is to be obtained, the crop must have had that high quality when it was harvested. The most important factors in this connection are stage of development and vegetation (leaf to stem ratio) at cutting time, and the choice of forage species.

Choice of a Forage Keeping System

From the standpoint of preserving the quality of the harvested forage to the maximum possible extent, each system offers certain possibilities. The same applies to harvesting methods. In every case, before a choice is made, a number of things have to be considered, including the value of what is being produced, the cost of the system or systems, the changes they will entail, and the local climate.

The problems involved in harvesting and conserving forage are not peculiar to Quebec: efforts which have been made all over the world to solve them have resulted in spectacular progress in mechanization during the past 25 years.

In Quebec for example, the number of hay balers rose from 12,000 to 32,000 between 1961 and 1971. During recent years, many more silos have also appeared and this is an indication of increased use of ensiling machinery.

Faced with the necessity of choosing a system of forage harvesting and conservation, the farmer has to bear in mind the considerations that compel him to make a wise choice and which will also help him to do so. From the technical point of view, there are requirements imposed by the nature of the crop and the need to conserve the herbage with as little loss of nutritional value as possible and, from the economic standpoint, there is the need for forage which can be profitably

converted into milk or meat. Besides these, there are human considerations such as a desire to simplify and make the work easier, even to the point of automatic feeding.

Briefly, in choosing a system of forage harvesting and storage, the farmer is always trying to end up with the maximum quantity of the best quality fodder possible. To achieve this, he has to take into account such things as fertility, cutting stage, rapid curing, minimizing loss of leaves, reducing exposure to bad weather, and storage without harm or risk.

Let us now take a short look at the two main systems of doing this which are in general use, one of them producing silage, the other hay.

Silage

The practice of ensiling arose from the need to conserve plants or crops that are too wet at cutting time. It should make it possible to harvest succulent young herbage at its maximum nutritional value. Such early cutting favours a rapid second growth, thus allowing the farmer to take maximum advantage of the production potential of his hayfields. Ensiling also reduces the hazards from bad weather. Ensiled herbage undergoes a number of changes due essentially to the respiration continuing in plant cells that are still alive and to the activities of certain bacteria. Good silage conservation is dependent on factors which favour the activity of lactic enzymes and prevent excessive and overlong heating. The conditions for good ensiling are as follows:

a) *Exclusion of air*

This can be achieved by vigorously packing down the plant material in horizontal silos with a tractor (great care being taken to see that the tractor does not topple). In tower silos, packing results from the weight of the overlying material. This is one reason why modern vertical silos are so tall. Exclusion of air is also helped by chopping up the material into short

from the silage at the bottom, and be covered to prevent the silage at the top from getting wet again;

c) *Adequate concentration of sugars*

The concentration of sugars depends on the kind of plants ensiled and on their dry matter content. From this standpoint it is easier to ensile corn or grass successfully than legumes; hence, the use of

people or animals, and also matter like soil which can cause undesirable fermentation.

Types of Silage

Silages are usually classified according to how much moisture they contain (which is a measure of their dry-matter content). To some extent this also decides the kind of machinery and silo used to ensile them.



lengths and spreading it out well in thin layers in the silo;

b) *Adequate dry matter content (30 to 50 per cent)*

This desirable percentage of dry matter can be attained by wilting the cut plants in the field. The silo must have good drainage to carry away effluent

molasses or crushed grain as a preservative is sometimes recommended, especially in the case of legumes with a very high moisture content;

d) *Freedom from foreign objects and other substances*

This means things or fragments that might injure or harm

a) *Direct-cut or wet silage (70 per cent moisture or over)*

In this case, the herbage is cut and put into the silo immediately. This method allows maximum independence of weather conditions but, on the other hand, losses from bad fermentation are high. There is a lot of effluent and

the characteristic odour of this type of silage can be smelt from afar downwind. With such wet silage, risk of freezing is particularly high. Use of preservatives like molasses and crushed grain is recommended.

b) *Wilted Silage (60 to 70 per cent moisture)*

The wilting of the green forage in the field (to reduce its moisture content to the above percentage range) before it is put in the silo is known to reduce and even prevent the butyric fermentation which causes losses in direct-cut silage. This type of silage needs to be chopped fine and very tightly packed to exclude air.

Because the moisture content of the green forage must be reduced to around 65 per cent to prevent butyric fermentation and as bad weather could be a problem, it may be important to condition the green forage to speed up moisture loss in the field.

Under normal conditions this type of silage may give the best results.

c) *Haylage (45 to 60 per cent)*

More prolonged wilting leads to "haylage". Wilting to this degree prevents butyric fermentation, and the quality of this type of silage is generally better than that of the two already mentioned.

However, haylage calls for an airtight silo which must be filled quickly and very tightly packed. (If the forage is chopped fine it will be easier to pack down.)

With haylage wilting, and hence conditioning, are essential. Although the cut forage

may have to be left lying in the field a little longer exposed to the risk of bad weather, the resulting silage is practically impervious to frost damage and provides enough dry matter for almost continuous feeding as the sole feed.

Field Operations and Machinery

Ensiling involves a number of field operations such as cutting, conditioning, wilting, picking up, and hauling. With present-day machines it is necessary to go over the field only once or twice (depending on the type of silage) to carry out these operations. In the case of ordinary silage, the field need only be gone over once to do the cutting, chopping, and loading into trailer-wagons. In theory, this is the most efficient way of harvesting herbage. In the case of wilted silage and haylage, which take time to wilt, it is necessary to go over the field twice.

Roughly speaking, the hauling and silo-filling operations are the same for all three types of silage.

The forage harvester-chopper is the basic machine for harvesting green herbage. It is a handy and powerful machine which cuts forage, chops it into uniform lengths, and blows it into a wagon in one operation.

There are also flail-type forage harvesters which come in several models. These are also very useful for chopping crop residues for turning under, or for chopping corn stover for litter, or for chopping straw.

Self-unloading (dump) wagons have also now become regular equipment for harvesting herbage for silage. There should be enough of them so that full advantage can be taken of the available labour and time and of the max-

imum capacity of the forage harvester.

Silos

There are three types of silos: vertical (or upright or tower), horizontal, and temporary.

Vertical silos

Vertical silos may be of different dimensions and types of construction but they all need to have a solid foundation and a means of draining away effluents if these are a problem.

Silos may be more or less airtight. The more airtight ones can be used for feeding silage all year round. The more airtight the silo, the better the silage will keep and the less loss there will be. In the case of all silos, it is important to consider their cost in relation to their capacity and airtightness.

Whatever the type of silo, one should plan to remove three inches of silage each day in winter and four inches in summer to avoid losses and, above all, so that the animals will be fed silage of uniform quality.

Horizontal silos

There are two kinds of horizontal silos:

- above-ground with wooden, concrete, or even earth walls;
- scooped in the ground and also with wooden (not too advisable), concrete, or earth sides.

To have good silage using horizontal silos, it is necessary to chop the herbage fine, drain the bottom of the silo well, pack the material thoroughly — usually with a tractor but taking all safety precautions — and cover the ensiled material.

Horizontal silos are cheap and easy to construct and may be of different sizes. Some farmers cover them with a roof and use the space between the roof and the silage for storing hay or straw (which also protects the silage from freezing).

Beef cattle can be left to feed themselves from horizontal silos. Briefly these silos provide plenty of scope for farmers' inventiveness.

Temporary silos

Horizontal silos may be used on a temporary basis pending construction of a vertical silo or while one is learning to grow better-quality silage and to feed silage. They may also come in handy at any time for storing surpluses from big yields of silage which can not be wasted.

Temporary silos can also be made of snow-fence (two or three heights) lined with black building paper or polythene. Although it is difficult to make these more than 10 or 12 feet high, even this height gives a considerable amount of storage space.

Ensiling is an art which calls for practice and study. Hence no possible source of information should be neglected. One learns to make silage by making silage, but other people's experience is often a good guide.

It should be mentioned that, whatever type of silo or machinery is used, ensiling involves considerable risk of losses (20 to 75 per cent) during harvesting or storage. Such losses can be reduced by attention to the points already mentioned.

Hay

The harvesting and storage of dry hay are two things that have

been understood and practiced in Quebec since the first forkful of herbage was available. Haying has not changed very much during recent years but there are two methods that can be used together or separately depending on conditions, namely *field curing* (which is very widespread) and *artificial drying* with air at atmospheric temperature (which is becoming increasingly important especially in some regions).

Drying

With either of these methods, a major problem is to get the hay cured quickly in the field thereby reducing the weather hazard. The process can be speeded up by mechanical means operating either on the stems (conditioning) or on the mass of hay (tedding). Generally speaking, conditioners are much more effective than tedders for hastening drying. Tedders are mainly helpful in turning over windrows after a rain.

In principle then, to conserve the quality of hay, the curing process must be speeded up. The above-mentioned two methods achieve this in different ways.

Tedding

The tedder is a machine that lifts, turns, and airs hay which may or may not already have been windrowed. Tedding is helpful after rain but may cause loss of leaves and is not very effective with dense hay such as a heavy crop of alfalfa.

Conditioning

Progress has endowed us with a machine that comes in different designs and models although all of them are designed to lift, turn, and air dense masses of hay and, in addition, crush the stems to hasten evaporation of the

moisture in them and thus shorten curing time in the field. The form of these conditioners' rollers differs depending on whether they are intended to crush or break the stems. The machine may also be combined with the mower and windrower. Hence, the mowing, windrowing, and conditioning can be done in one operation, thus reducing field work without detriment to the curing process. Conditioners of whatever type hasten curing in the field — sometimes to a very important degree.

For alfalfa, the type of conditioner that puts a crimp in the stems (making them look a bit like concertinas) is better than the other type which crushes the stem lengthwise. The latter type is better for grasses — although grasses rarely need a conditioning. In either case, the conditioner cannot do more than it is given a chance to do. In other words, it must be in good shape and attention should be paid to the following points:

- the conditioner must be attached to the mower or follow it within 30 minutes;
- the speed of travel must be varied according to density of the stand;
- the rollers should turn at their top speed to improve pick-up;
- the height and pressure of the rollers should be adjusted according to the recommendations or as the operator's experience may suggest.

Rakes and Raking

The hay-rake and raking do not have much to do with the curing process unless the rake is used as a kind of tedder, i.e., for turning the windrows and hastening drying. The rake is used mainly for putting the hay in a convenient position for picking up. Care should be taken to rake hay while

there is still enough moisture in it to prevent loss of leaves. Use of combined machines (mower-conditioner-windrower) is increasingly doing away with the need for a rake. Moreover, a baler can easily pick up hay — windrowed or not — without loss.

Briefly, to hasten curing it is important to condition hay as soon as it is cut and to bear in mind that each pass with a tedding or raking implement increases "handling" losses, especially after the moisture content of the hay has fallen to 50 per cent or less. Nevertheless, a good tedding will fluff up windrows which have been flattened by rain and let the air pass through them.

Artificial Drying With Unheated Air

The drying of hay with air at atmospheric temperature is becoming steadily more popular with farmers who want to conserve better hay quality and, at the same time, reduce the losses which occur when hay is cured in the field even under the best conditions.

The process involves forcing unheated air through a mass of hay to complete the drying started in the field. The air is forced through the hay with an electrically powered fan.

For some farmers in naturally humid regions where curing hay has always been a problem, such artificial drying might be the key to producing better-quality forage. The following are some of the advantages they should consider:

- cutting at a less advanced stage of growth;
- less risk of waste from bad weather;
- almost no loss of leaves;
- better conservation of palatability and nutritional value;

- elimination, in some cases, of additional tedding operations and of risk of fire from spontaneous combustion (overheating).

If better quality is conserved, the cost of producing each unit of T.D.N. (total digestible nutrient) is reduced. However, artificial drying will only be effective under satisfactory conditions. For example, bales of hay should be of suitable density (on the light side rather than too heavy) and they should be properly placed on the dryer and piled up so that the forced air cannot take short cuts to escape.

Loose Hay And Big Balers

During recent years, much has been heard about handling hay in bulk and about big bales or rolls. These innovations have their advantages (such as labour-saving, easier and faster haymaking, and economy of machinery and build-ings) and also their disadvantages (longer curing time, considerable losses, and the vulnerability of big bales to bad weather).

In view of the numerous disadvantages of storing hay in bulk, the Farm Machinery and Buildings service of the Quebec Department of Agriculture only recommends it on farms where labour is limited, where a lot of hay is put up (200 tons or more) and which have loose-housing or cow-cubicle barns. It also recommends it to farmers who do not have a hay barn, are not already committed to another system of haying, or are prepared to accept the losses of hay entailed by bulk handling and outdoor storage.

Summary and Conclusion

The Quebec farmer has a choice between two ways of harvesting forage: *ensiling* in three different forms (ordinary silage, wilted

silage, and haylage), and *making baled hay* dried naturally in the field or partly in the field and partly artificially with forced unheated air.

As regards the financial aspects of such choices, it should be mentioned that the costing of a forage producing system is a very complicated procedure because forage is not an end in itself but feed for livestock which, so to speak, turn it into money.

In general, moreover, when a farmer has to reckon costs he may be dealing with one or the other of two different situations. Either the proposed change does not involve the farm's entire production system (size and nature of the forage acreage, the number and kind of livestock, feed storage facilities, etc.) or the proposed new system involves almost the whole enterprise (number of livestock, crop rotations, farm implements, etc.).

In the first case, a separate cost analysis will be sufficient to predict the effect of a given change in an existing system but, in the second case, an overall study of the effect of the change on the whole farming operation will be necessary.

Faced with the demands of a modern farm, the farmer should, before taking any step whatever to completely change an existing system or even to improve it, ask for advice, visit other farms, consider various possibilities, and think about machinery sharing pools.



IWY — Quebec Women's Institutes

by Estelle A. Coates
Chair Person

1975 was the special year for women around the world decreed by the United Nations. Programs and projects indicate that WI members in our province emphasized in many ways the important role of women: their status and rights, their rightful place as citizens — first class citizens, not second class.

"Why Not?" the catch-phrase slogan was considered by many as disgusting and offensive. Why Not — with an advertising campaign of over one-half million dollars — Why Not — a more meaningful and effective slogan? It has been noted that this "Why Not" campaign may have stirred up more negative response than positive.

Quebec law as it affects women and the status of women were popular topics. Special meetings were held to hear qualified resource persons speak on these subjects and answer questions. Most branches studied the booklet "Women and the Law" which was made available by the YWCA.

A set of films, "Challenge for Change", distributed by the National Film Board, on the subject of working women and the struggle women have had to achieve their rightful place as citizens were used to a limited extent. I attended a previewing of these films in Montreal and considered them ideal to spark discussion on equality and equal rights, not only for women who

work outside the home but also for women who work at home.

Speakers and panel discussions on the rights of women and the significance of International Women's Year were considered informative and beneficial by the membership.

Branches in Pontiac County, together with other organizations, formed an IWY Group known as "Ponti-Action", with aims to provide a positive and unifying force to assist with projects intended to bring useful information or education to Pontiac women. A grant was received from the Department of the Secretary of State to cover the year's expenses. Local committees were formed to plan worthwhile projects in accordance with the aims of the organization. Speakers were from the Department of the Secretary of State, the IWY Secretariat, and also included a lady lawyer. Films were shown on pertinent subjects. It is worth noting that most of these events were bilingual, in itself an advantage and an education. One member commented, "I have gained much from working with our French women." This group has decided to continue into 1976 with plans for courses in English and French on the metric system. Congratulations and best wishes go out to these members who showed such initiative.

Members in Sherbrook County entered a float in the Annual Optimist Parade, promoting the theme of "Peace, Equality and Development". The float depicted women active in professions or jobs normally considered men's

work. The International and Canadian Symbols for IWY were displayed. This County also promoted the idea of having a decal of the QWI crest to be displayed in car windows or homes of QWI members.

Roll calls were used to call attention to IWY and one branch planned a program which involved each member taking a critical look at herself. I spoke at various meetings encouraging members to plan activities to mark IWY. I also attended a Workshop held by the Department of the Secretary of State in Montreal. This was a Quebec consultation for representatives of women's groups. Information was exchanged, particular needs of the women of Quebec were discussed, as were immediate and long-term objectives and how best to achieve them.

The theme for our QWI Convention — 1975 — was "Women in World Affairs-IWY". We were fortunate to have our National President, Mrs. J. McLean, speak at our Convention, using our theme as the basis of her most inspiring address.

Members in all parts of our province created a sense of awareness by publicizing IWY at every opportunity. Community celebrations in which members participated made an impact on the public.

There are varying opinions on the degree of success attained by IWY in Canada. We, as WI members, had a responsibility to make a contribution to IWY. We can only hope that IWY reached a sufficient number of women so

that a concerted and co-operative effort will be made to ensure progress of women's rights in society.

Annual Convention

The Quebec Women's Institutes look forward to a good turnout for their Annual Convention, which will be held at Macdonald College from May 25 to May 28. A reminder that handicrafts should be in the QWI Office by May 15. Gifts for the gift stall at P.E.I. should be in the Office by the end of the month. If they have not already been sent, please bring them with you to Convention.

Winter was Hard but Busy

This past winter was a hard one in Gaspé with lots of snow, winds, and rain, but the nice weather and spring has finally arrived.

The winter months were busy with **Gaspé County** members working on various projects. Some of the branches provided gifts to the Ross Sanatorium for the aged and retarded and most have devoted one meeting to learning about the Metric System. Snowmobile laws have been studied and though the snowmobile has some useful purposes the majority of members were not too enthusiastic about them.

Douglastown members hope to attend the PEI convention and have been raising funds in various ways—card parties and social events—for the trip. This branch has two new members now.

Good citizenship was shown by the **Dartmouth** WI when they helped a family who were burned out and a wife with family who had lost her husband.

Wakeham had fun with a masquerade. The members regularly visit members over 80 years old in the community.

The new branch, **Haldimand**, is very active in the community. A "first" for them was a very successful Hallowe'en party for the parish children last year. They raise funds in various ways, including candy sales.

Provincial Office

The Executive of the Quebec Women's Institutes have accepted with regret the recent resignation of Mrs. A. Champion, who has been Provincial Secretary for eight years. Mrs. Champion's familiarity with the many and varied facets of WI and office procedure will be missed. The Executive, on behalf of all members of QWI, would like to take this opportunity to thank Mrs. Champion for the time, effort, and dedication she put into her position and hope that she will enjoy the extra time she will now have to pursue her other interests, not the least of which is being President of the Huntingdon branch in Chateauguay-Huntingdon County.

We would like to extend a warm welcome to our new Secretary, Mrs. James Gamble. Though not a member of the Women's Institutes, Betty Gamble spent many years in the Eastern Townships, is familiar with many other rural areas of Quebec, and is a "country woman" at heart. Mrs. Gamble, her husband, and family of four live in Pointe Claire within easy distance of the office. Although she plans to be in the office at least three days a week, we suggest that business calls be placed to the office on Mondays, if possible.

Mrs. Gamble joins us at a busy time as we prepare for Convention — those of you who come to

Convention will meet her then; others will meet her in the months to come through correspondence. We look forward to working with her.

Miss Edna L. Smith,
President, QWI.

A Trip to Yellowknife

It seemed as if we had flipped over an extra page of the calendar when my husband and I arrived in Yellowknife in the North West Territories early in September. The poor soil, scrubby trees, and many rocks were quite a contrast to the good farmland and lush foliage of the maple trees at home in Quebec and we were not sure we would enjoy holidaying there.

After travelling 3,500 miles in one day, it was difficult to realize we were "a way up there on the map." Our first surprise was at Edmonton where we boarded another jet plane instead of a small one with only a few passengers.

Our son, with his wife and baby daughter, met us at Yellowknife airport, and we soon saw the mushrooming city, where construction cannot keep up with the demand for housing. Among other projects nearing completion was a 10-storey apartment building, a museum, and an air-cargo terminal for the north. As Yellowknife is now the capital of the NWT, there were many Government buildings and offices to be seen. With modern buildings and modern conveniences in the homes, pioneering seemed only a name. There are two gold mines and we were told uranium would soon be important. Stores seemed to be stocked with about everything needed, although the high prices made the cost-of-living

Mrs. Cameron Dow, O.B.E., a charter member and still very active in the Port Daniel W.I., was congratulated on her 90th birthday at the March annual meeting held in the home of Mrs. Edwin Sweetman.

back home seem almost comfortable in comparison. The schools are large. It appeared to be the "land of young couples" and I found myself watching for middle-aged faces and grey heads.

I missed the small birds from outside the kitchen window at home and found the huge black ravens, with their untuneful voices, a poor substitute. They hovered around the dwellings looking for garbage and even upsetting some of the pails.

While we missed the reds of the maples in the autumn, the sun shining on the gold leaves in Yellowknife made a beautiful sight, and the country was beautiful with the deep blue waters of the many lakes and the clear air free from the haze so often seen in more southerly areas.

One evening at the city library during her tour of northern centres, Margaret Atwood, Canadian author and poet, gave a reading from a book she was currently writing. At the spotless and well-equipped Fire Station, we took advantage of a film and demonstration of fire extinguishers suitable for homes.

It was disappointing for me that our FWIC worker, Mrs. Rachael Paton, was no longer there but I did meet an acquaintance of hers at a craft shop and was told a WI branch had not been formed in the City because it was over-organized already. This appeared to be true. Handicraft classes are popular and there is a craft shop where the ladies can sell their work. Eskimo and Indian handicrafts, carvings, and art work are plentiful in the stores but as I thought the prices a bit high for "retired farmers", I



decided to learn how to do some of it myself. A nice young Indian mother living near my son agreed to teach me how to make a bead necklace on a loom. Her loom was a long stick of wood with a nail on each end and a cardboard to hold the threads up. Her mother, who doesn't speak English and lives 200 miles away from Fort Providence, came to visit and taught me how to sew beads on to moccasins with two needles. So armed with beads, patterns, etc. I have been experimenting since.

Some things that struck us: The NWT licence plates on the cars are attractive in the shape of a polar bear; the many different breeds of dogs which I assume was evidence of the many parts of the world from which the present Yellowknifers have come; the permafrost problem in construction — lovely homes vacant and leaning in different directions due to the foundations not being built on rock. The foundation for our son's new home was built on and around rock and levelled over with gravel. The two-storey house will be built on top of that. We saw a few vegetable gardens and some lovely flowers.

My husband was amazed as to how much oil and gas had been stored to supply the city for the winter. Something that gave him a queer feeling was to see so many graves already dug for the people who would die there this winter.

We found trilingualism in Yellowknife with English and two Indian languages heard on the radio. I also noted several languages printed in the front pages of the telephone directory for the north.

By the first of October our holiday was over and we were reluctant to leave. We had made so many new friends, especially in the Baptist Church, whose members had made us so welcome. On our last day at the end of a tour of the mill at the Giant Gold Mines, I looked up into the blue sky and thought of our Hymn of All Nations . . . But other lands have sunlight, too and clover, and skies are sometimes blue as mine . . .

Mrs. Jean Clark
Brownsburg, P.Q.

Dear WI Members:

Annual meetings are over and reports have been given. We are amazed to hear of all the varied things done in the branches and of the many new things learned — sometimes we are inspired to try and do better ourselves.

A **Matagami** member, Mrs. McBain, 78, inspired her fellow members to get out the various WI handicraft contest lists for this year and make plans to enter some of them. She told them she had won prizes for an article

at QWI convention and at Expo Quebec last year. Mrs. McBain will have some competition this year—good luck! The branch raised funds with an auction of articles brought in by the members. Many WIs report new members. **Frontier** has five—Congratulations! Remember to send in the names and addresses to the Office and to Miss Smith.

Gifts are being handed in for the PEI sale table, i.e. maple products, hand-knitted articles, tea cosy, etc. These should be brought to the QWI convention at the end of May.

Mrs. Wilson Beattie of **Lennoxville** was presented with a pin in appreciation of some 22 years of work for the Cancer Society. Mrs. C. Clouthier of the Sherbrook Branch of the Cancer Society made the presentation. Congratulations Mrs. Beattie!

Donations have been made to school hot lunch and student loan funds. One branch gave five dozen mugs to be used for soup by school children. **Granby West** saves bread bag clips for their local Historical Society and **Grand Cascapedia** sent used cards to Alberta to aid crippled children and used stamps to Toronto for a leprosy mission. The Red Cross also uses used stamps.

Regrets for the passing of the Eaton's Catalogue have been mentioned by many. It was a magazine the whole family read and enjoyed. Some of you shared nostalgic comments: many regret we will no longer see it.

Brownsburg is planning for their 50th Anniversary. They have been busy knitting for CanSave and gave a donation to the

Guatemala Fund, as did others. A "Fun Night" was enjoyed by members of **Frontier** with families and friends. They danced to the music of the Crawfords, Bates and Morrows. The members of **Jerusalem Bethany** also enjoyed some fun at their meeting when three of their members prepared a hilarious program including a skit and a reading to entertain the other members.

Some recent programs and contests: guessing the contents of a kitchen cupboard; muffins judged and then sold; word contest from "Adelaide Hoodless Home". The winner had 62 words.

A scrapbook was received by **Kinnear's Mills** WI from a WI branch in Little Fort B.C. **Inverness** ladies handed in 10 pairs of stockings, four toques, seven pairs of mittens and a sweater that they had knitted for Canadian Save the Children Fund.

Some Roll Calls: Name a Canadian woman you admire and say why; simple health rule; why I joined the WI and what I got out of it.

Mrs. J. Robertson
QWI Publicity.

1976 International Quilt Competition

Sponsored by the Atlantic Winter Fair and the Women's Institutes of Nova Scotia.

REGULATIONS:

1. Entries open to groups or individuals.
2. Quilts must be double bed size.
3. Quilts may be patchwork, embroidered, appliqué, etc. and must have been completed during 1976.
4. Any design may be used,

traditional, original, etc.

5. Quilts will be judged on workmanship (75 per cent) and artistic merit (25 per cent).
6. An entry fee of \$5.00 to be paid and only one entry per exhibitor.
7. Exhibitors must include return postage when sending in entry.
8. Prizes to be awarded:
1st. \$250. and trophy
2nd. \$150
3rd. \$ 75
4th. \$ 25
9. The first four placings will be on display at the Atlantic Winter Fair, October 9-16, Halifax, N.S. A juried display from the remaining entries will be held at the Art Gallery, Mount Saint Vincent University, Halifax, from October 1st. to 12th.
10. Judging will be done by a panel of three qualified judges.
11. Entries close Monday, September 13, 1976. Articles may be mailed to Box 368, Windsor, N.S., and must be received no later than 5:00 p.m., September 27th. They may be delivered in person to the Hants County Exhibition (Homecraft Division) Windsor, Monday to Friday, September 20 to 24, between the hours of 9:00 a.m. and 4:30 p.m.
12. For further information and entry form please write:
Atlantic Winter Fair,
2901 Windsor Street,
Forum Complex,
Halifax, N.S.

or
Women's Institutes of Nova Scotia,
Boulden Building,
N.S. Agricultural College,
Truro, N.S.



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